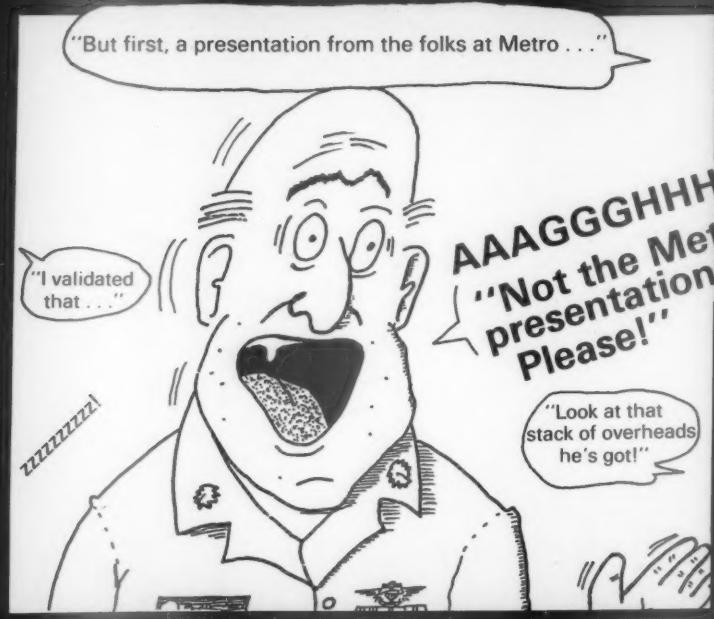


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An approach makes another look  
at the weather





### Editorial

Ever find yourself thinking these thoughts before the weather folks give a presentation? Weather lectures tend to be a little boring, but up-close encounters with Mother Nature are just the opposite. They can get downright exciting. The most common hair-raising "there I was" stories received at Approach involve weather, fuel or a combination thereof. Last year we devoted an entire issue to weather. The response was so favorable that we decided to do it again. After reading these tales, you might find it easier to sit through your next weather lecture, Cloud Man or no Cloud Man.

I tried to say good-bye in the January issue, but NMPC said, "Not so fast." Now I'm really leaving, and you'll be able to reach me at VF-101, NAS Oceana VA 23460. As this issue goes to press, the editorship of Approach shifts to Lt. Ward Carroll. If the name sounds familiar, it should—he is the creator of "Brownshoes in Action." I can't think of anyone better suited to take over the magazine. Ward promises to continue putting together theme issues, and, of course, "Brownshoes in Action," the JO's choice. So this time, I mean it—see ya!

LCdr. Dave Parsons  
Editor

# inside approach

Vol. 34 No. 9



A Tomcat waits to take off during a heavy rain at NAS Miramar, Calif. Photo by Cdr. Joseph F. Towers.

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# It Certainly Feels Good

By LCdr. Tim Lewis

*We still couldn't see in front of us because of the fog, but we knew the field had to be just in front of us. We now had only 500 pounds of fuel, and I certainly wanted to see the runway. Suddenly, we broke out at 225 feet.*

IT looked like a typical hop, a round-robin syllabus flight to a nearby civilian field, shut down, grab a quick bite to eat, and return to NAS North Island. My copilot (Al) was an experienced lieutenant, j.g., who was nearing his aircraft commander designation, and I knew this would be a good chance for him to practice conducting a flight.

Al filed a stopover flight plan from NORIS to Palm Springs International, and return. The weather was solid clouds en route, and the lowest MEA we could get was 9,000 feet. This is not the best altitude for a helicopter, but it would be good experience for him. During the brief, we noted the freezing level was below 9,000 feet; we would have to keep an eye out for icing.

During the preflight, I noticed we had 3,600 pounds of fuel even though the flight plan called for 4,000. With the lesser load, we would have only 45 minutes of extra fuel for the entire flight. That amount was well within

# To Be On the Ground

the required range, but I felt that if we filed with 4,000 pounds of fuel, we better have it. So we delayed our takeoff to take on an extra 600 pounds.

When we were cleared for takeoff, we launched and immediately went into the goo. We continued our climb, leveling off at 9,000 feet. I saw we had to maintain a 30-degree crab to track on our radial, evidence of over 50 knots of wind coming from our 7 o'clock.

"Oh, well," I thought, "any tail wind can't be bad."

"Three degrees outside," I remarked, "and in the clouds."

Referring to NATOPS, we selected engine anti-ice and felt good about the indicators telling us it was working as advertised. We remembered that NATOPS said to look for ice and snow buildup on the windshield wipers.

"Do you see any ice buildup on your wipers?" I asked.

"No, but let's keep an eye on it," Al replied.

As we tracked along, we were in and out of rain squalls and still solidly in the clouds. I began to wonder if this flight would be as much fun as I had anticipated. Then I noticed that ice was forming on my wipers. Just then, the caution panel illuminated indicating that our No. 1 engine anti-ice was no longer working. Great.

"Well, Al, what would you do in this situation?"

I knew the clouds went all the way to the deck, which at this point was mountainous terrain, and San Diego Departure could not vector us lower than 9,000 feet. Still, I was hoping there was a "book solution" to our predicament, and Al would tell me.

Al thought for a minute and replied, "I'm not sure, but we will be descending in about 15 minutes. I think we'll be OK." It wasn't what I wanted to hear, but his answer was as good as any I could think of. So we pushed on, watching for further ice buildup.

Luckily, the buildup did not continue. I felt better as Approach cleared us for the TACAN approach and descent to 5,000 feet.

"No sweat now," I thought, "The worst is over. Time to land at Palm Springs and have a warm dinner."

Dinner was fine. We got to show the civilians a Navy flight crew and spread some good PR. Everything was going fine. We went to the fixed base operator to file and check the weather for our return flight home. I thought long and hard about the icing and the failed No. 1 engine's anti-ice system. We talked over the situation, and I decided it might be best to go low, VFR, over the mountains, following Interstate 10. I knew the route

from previous flights, and the weather over the mountains was now 500 AGL.

We took off with about 90 minutes of daylight left. I knew it would be nice to get out of the mountains and home within that time, and felt good about us making it back in time to watch the 8 o'clock sitcoms. We had a little over two hours of fuel on board, thanks to the tail wind on the first leg. Somewhere in the back of my mind, I knew this was cutting it a little close, but I didn't want to admit it. The first leg to Palm Springs was only one hour and 15 minutes.

We had no problems en route until we were about 10 miles west of the Julian TACAN. We climbed to 5,000 feet to get over the mountains and had to turn toward the southeast to stay VFR. No sweat. I knew the I-8 was in that general direction, and as soon as we could see it, we would follow it to San Diego. It seemed as if the weather was moving eastward, and we had to turn almost due east to avoid the clouds. After about 15 minutes, I began to get a little worried. I still could not see the interstate; the weather was holding us at 500 AGL, and night was approaching. We were over the mountains, and to top it all off, the RAD ALT failed. We discussed calling San Diego Approach for vectors back to homeplate, but I knew we were too far away to get them from our low altitude. We could climb for better reception, but that would put us back in the goo.

Suddenly, our crewman reported seeing the lights of the interstate off in the distance. As we headed toward the lights, I began to feel a little better.

Once we got to the interstate, we could see pretty well. I was dismayed to discover that we had flown almost 50 miles out of our way. The extra fuel we took on at the beginning of the flight was looking pretty good to us now. We settled into a night VFR flight over the interstate. I had flown this route many times, and although we were flanked by shadows of mountains on either side, I felt safe staying over the road at 500 AGL. I figured that would keep us clear of all powerlines and terrain.

We followed the lights of the road for about 15 minutes. There was a lot of traffic below, and the automobile headlights gave us a nice visual reference. Then, all hell broke loose. Within five seconds, we were totally IMC.

"We're in the goo!" Al yelled.

Thoughts raced through my head. Make a 180, exit this stuff. But no, there are mountains on either side,

and we would be turning into them.

"I have headlights below," Al said. "Let's descend."

I thought what if we get a descent rate going and lose the lights. Then what? We might not be able to recover.

"No," I snapped, "Let's climb... and quickly." I knew that the highest mountain in our vicinity was about 6,000 feet and we were now at 4,200. We could be above the peaks in 45 seconds. Up we went. Through 5,000 feet, 6,000 feet, 7,000 feet, still totally IMC. At 7,500 feet, we broke out between two cloud layers. Great! VMC. Now, we should call Approach.

"San Diego Approach, Clementine 720."

"Clementine 720, San Diego Approach, go ahead."

After the normal identification procedures, Approach called, "Radar contact," and we requested radar vectors to final at North Island.

"Clementine 720, San Diego Approach, North Island is operating IFR, conducting ASR approaches to runway 29. Cleared present position direct to Poggy TACAN."

I switched the TACAN to Poggy. No lock-on. Back to Mission Bay, no lock-on. Switch to Julian, no lock-on. Great. One more thing going wrong. A frantic look around the cockpit to check all the switches and circuit-breakers were in the proper position. Time to tell Approach about our situation.

"Approach, Clementine 720, we have lost our TACAN. Request Radar vectors to GCA final at North Island."

"Clementine 720, San Diego Approach, North Island GCA is down, and they are presently reporting below ASR minimums. All they have is TACAN approaches. Say request."

"Request to go home," I thought.

"Request radar vectors to nearest divert field, over."

I was getting worried, and the sooner we could get on the ground, the better.

"Clementine 720, nearest field is Miramar."

"Approach, Clementine 720, we'll take it."

I began looking up the Miramar TACAN approach

# Pilot Error:

Accepted.

By Lt. Lori A. Bolebruch

THE mishap board findings stated, "Pilot error. Accepted," but no one would ever know for sure what had happened on that December night. At 2330 when the aircraft was returning to homeplate, it disappeared. No Mayday calls were heard; no debris was located. The helicopter apparently hit the water at high speed, and no one survived. Their squadronmates, families and the investigating board wondered why.

"Hey, Joe, wake up — you've got an a.m. launch, and the crew will be by in 10 minutes to go to chow."

"Yeah, yeah, I'm awake; guess I stayed a little too late at the club."

After the usual galley breakfast of coffee, toast and two cigarettes, Joe and the rest of the crew drove to the airfield to prepare for the morning ops, consisting of external loads and passenger transfers. They performed the normal detachment brief ("You've got the left, I've got the right, let's go fly."), and they strapped in to begin a full day of operations. The other det crew was scheduled to relieve them at noon.

Joe, his copilot Ralph, and two crewmen launched at 0700 with an

*(This story is based on a fictitious incident, yet one that could happen and may have already happened many times.)*

external load. They spent the morning as part of a fleet exercise, flying from ship to ship and from ship to shore. The two-plane detachment based at a Navy outlying field had begun day two of the five-day det. At 1100, the other crew was asked to launch in addition to Joe and the fellows in Squadron 602. The exercise was running into some snags, and they needed both helicopters airborne. The crew of 602 managed to get some box lunches from the galley at about noon during a one-hour shutdown at the field.

Both aircraft flew until 1700 in support of the battle group exercise. Joe, the OinC, called the squadron when ops were completed and found out that a night DLQ (deck landing quals) flight was on the schedule and volunteered his crew to help fill the bounce period. Joe, always enthusiastic about flying, told his crew about the "good deal" he had worked up for them as they rushed to the chow hall for dinner. They had a scheduled overhead of 2000, which meant they needed to takeoff from the outlying field at 1930.

while Al flew the aircraft. Both our hearts were beating a little slower, and we began to relax.

"Clementine 720, San Diego Approach, do you know you're in Mexican airspace?"

Well, of course, we didn't know that. I wanted to give him a smart answer reminding him we had already reported no TACAN, but my better judgement prevailed.

"No, sir, we seem to have lost all navigational aids. Request vectors."

"Clementine 720, San Diego Approach, advise a heading of 320 to reenter U.S. airspace."

"320. Thanks." I could see the violation being written, and the excuses began to tumble through my mind. Al continued to fly, following vectors to a final at Miramar.

I was snapped out of my thoughts by the "rabbit" approach lights as they lit up the cockpit. The strobes were near, but I couldn't get a direction because of the thick fog. At 300 feet, I prayed we would break out.

"I see lights, Al," I said as I could see the lights of the highway that crosses the perpendicular to the end of the

runway. We couldn't see straight ahead, and for an instant, I wanted to turn to parallel them, then I realized how really disorienting the rabbit was at unfamiliar fields.

"Yeah, I see them, too," Al replied as he slowed for landing. We still couldn't see in front of us because of the fog, but we knew the field had to be just in front of us. We now had only 500 pounds of fuel, and I certainly wanted to see the runway. Suddenly, we broke out at 225 feet.

"Field in sight!" we both yelled. I could feel the tension leave my body, and we both breathed sighs of relief.

"Turn on the landing light, Al," I asked.

I saw him fumbling with the switch, but no light came on. I made a mental note to debrief him on switchology. The silence was broken by our crewman who said, sheepishly, "I don't think we have one. I noticed it was missing on preflight."

"Thanks," I thought, "it certainly feels good to be on the ground."

LCDR. Lewis is the SAR evaluator for COMNAVAIRPAC and is the department head for HC-1's SAR School. With 17 years of flying experience, he has 3,000 hours, 2,000 hours in H-3s.

Ralph was feeling tired when they launched on the night mission, but he wasn't going to say anything to Joe. He really respected Joe's flying ability and didn't want him to think that he couldn't hack it. The crewmen were used to long days on det and had learned that it just wasn't worth arguing about. If the pilots want to fly, they'd fly. The night DLQs were going well, and the ship asked 602 if they could do a few practice ELVAs (emergency low visibility approaches) for them.

The crew noted the weather was starting to close in during the third practice ELVA, so Joe radioed the outlying field for a weather update. The field radioed back that they were zero-zero and closed to all traffic. Homeplate was an hour from the outlying field, and the weather there was holding at a 1,000-foot ceiling and four miles visibility. Joe decided they would fly home and launch the next morning at 0500 for the outlying field and be on station for the exercise at 0700.

At 2330, aircraft 602 departed USS Ship, reporting 2+00 fuel and

four souls on board. The ship relayed their pigeons as 100 degrees at 40 miles. The helo rogered and headed for home. The weather had deteriorated to a 200-foot ceiling and a half mile in fog. The crew had been awake for 18 hours and flying more than 12 hours. Then there was ominous radio silence.

A SAR was launched at 0030. After two days of extensive searching, the SAR was recalled, and the crew of 602 was listed as lost at sea.

The mishap board convened and subsequently determined that the mishap was a result of pilot error. Joe, everyone's friend and a pilot's pilot, had pushed himself and his crew beyond their limits.

OPNAVINST 3710 states that "flight personnel should not be scheduled for continuous alert and/or flight duty (required awake) in excess of 18 hours." The squadron SOP is even more stringent: "Crews should not be scheduled for more than nine hours of operational flying time per day. This is normally interpreted to be two operational sorties per day."

What drove Joe to push beyond these limits? Perhaps it was because he was an experienced aviator with several sea tours under his belt. He had been heard to say on occasion that "crew rest was for sissies." The rest of the crew was as much at fault as Joe. Not one of them ever mentioned to Joe that they were tired and didn't think they should be flying. Not one of them wanted to look like a non-hacker in Joe's eyes. They respected him far too much for that.

The bottom line? Scratch one aircraft and four lives. The solution? Each member of the flight must know his or her personal limits as well as those of the other crew members. Fatigue is insidious, especially when coupled with deteriorating weather. As an aviator, you must be able to recognize the warning signs. If you decide to push yourself and your crew beyond normal limits, ask yourself if it's worth risking the loss of an aircraft and your crew.

Lt. Bolebruch, an H-3 pilot, is air admin officer on the USS Lexington (AVT-16), homeported at NAS Pensacola, Fla. When she wrote this story, she was NATOPS officer for HC-1, NAS North Island, San Diego, Calif.

# Don't Worry, Be Happy

By Capt. Alexander A. Ford, USMC

"DON'T worry, be happy" was our squadron's motto of handling the first few days of frustration at sea. The weather clobbered the flight schedule during the first week of our cruise through the Northern Atlantic. Finally, it looked as if the weather was clearing so we could fly the continually postponed and rebriefed ACM missions. At the time, we were conducting "Blue Water VSTOL Ops" (nearest divert, Greenland, over 340 miles away).

We launched nine aircraft, three sections and one three-plane section, with 15 minutes separation between flights. The weather at the ship was Case I (better than 3,000 feet ceiling and five miles visibility), and forecast to remain Case I. What we found was Case III weather (less than 1,000 feet ceiling and five miles visibility) approximately 10 miles from the



ship because of fog caused by the cold air from the ice pack blowing over the Atlantic. The airborne pilots told HDC (Center) of the deteriorating weather conditions, but the information was not relayed to Weather or Pri-Fly (Primary Flight Control).

The first section checked in with Center 20 minutes prior to charlie time, and was given the weather as 2,000 feet and five miles (Case II). Since the ship was calling for VFR weather, the aircraft completed their mission as scheduled and checked back with Center seven minutes prior to their charlie time. They got the same weather brief as before and were cleared to the initial for the overhead. The section tried an IFR descent to the initial but could not get VMC, and began a climb at 600 feet back to VFR on top. They reported the situation to Center and requested a TACAN approach.

By this time, two other flights had completed their sorties and were returning for their charlie times on schedule with fuel to spare. They heard the problems the first section was having by monitoring base frequency on comm 2, and went to "max conserve" on their own. The last section (mine) received a call on base frequency from the holding aircraft telling us about the rapidly deteriorating weather and suggesting max conserve.

The TACAN DME was good to only 12 miles and was occasionally intermittent inside that range. The first section began a section TACAN approach and descended to 500 feet and 3½ miles when the TACAN broke

*Because of insufficient work-ups, the CCA controllers were not proficient, and the approaches our pilots received were as much as two miles off course, so the pilots chose to fly the SPN-47 approach.*

lock. They executed a missed approach and again reported the conditions to Center. At this time, the ship called the weather as 1,200 feet and five miles, and began to respond to the situation by turning on their radar and the AN/SPN-47 (All-Weather Landing System). The section separated and began individual SPN-47 approaches with CCA backup, breaking out at CCA minimums. The five individual aircraft flew the SPN-47 approach and broke out below CCA minimums in rapidly deteriorating weather. All seven aircraft had from 700 pounds to 900 pounds of fuel remaining upon landing.

My section, with the last charlie time, was told that a tanker was not available and the nearby CV would not be able to accept us. We were finally instructed by the LSO to divert to the LPH since the weather at our LHA had deteriorated to zero-zero. On our initial contact with Divert Center, they reported Case I weather, but we were at 1,500 feet and on top of the overcast. We began individual CCA approaches, and

once again, each aircraft broke out at CCA minimums shortly before the LPH went zero-zero.

Although the unexpected fog bank surprised everyone, word on the worsening weather conditions was not passed from one agency to the next. Neither Center, Pri-Fly nor Weather had talked to each other. Also, Center failed to pass on to Primary the pireps from our squadronmates. Also, they did not take any positive action (i.e., turning on the SPN-47 and Radar) until the first section had completed its second attempt to recover. Because of insufficient work-ups, the CCA controllers were not proficient and the approaches our pilots received were as much as two miles off course, so the pilots chose to fly the SPN-47 approach.

Several factors (lessons learned) for the future enabled everyone to land safely. First, all pilots were relaying pertinent information over base common, and, hearing the problems encountered, aborted their missions and went to max conserve early. Second, the SPN-47, which had just been certified, worked accurately and compensated for the weak CCAs. Third, the rapid response by the Air Boss and LSO to communicate with the last section to divert was timely and resulted in that section landing on the LPH moments before their weather went to zero-zero. Fourth, through superb handling by the Divert LPH controllers, a low-fuel, below-minimums recovery was successfully completed. Finally, I couldn't help thinking after I was safe on deck, "Don't worry, be happy."

Capt. Ford is an AV-8B pilot with VMA-542.

# Live and Learn...

By Capt. Jeff Thomas, USAF

IT had been a typical student-training sortie. I had been wrapped up with the student as he flailed through stalls and aerobatics in the MOA when the characteristic routine of the sortie was shattered by a tower broadcast on guard announcing a T-37 weather recall. I speculated that the cumulus buildups over the mountains 20 miles north of the field, which I had noted during preflight, must be threatening the field.

8

En route to homeplate, I mentally reviewed my procedures for crosswinds and gusty winds, expecting the winds to pick up. No problem, I thought. It's not uncommon to call the "Tweets" home when the winds start to increase if there is any threat of the winds going out of limits.

"Good chance for the student to see and practice some crosswind landings," I thought to myself.

I noted that the buildups, which had not appeared ominous earlier, were starting to move over the field as the Tweets all converged for landing.

A quick check of the field from my 1,000-foot AGL approach-end vantage point revealed quite a bit of blowing dust at the departure end of the runway. The approach-end winds were reported more or less calm. That seemed strange to me. I took over the controls from my student before going into the break just in case things got sporty. As we approached the perch, the winds began to pick up, but they still maintained a relatively low, steady-state condition. Rolling out on final, we found the winds were still increasing slowly, and I noted a small wall of dust moving down the runway toward us.

As I reduced power and began to round out for the flare, all hell broke loose. Our aircraft went from about 1 foot above the ground fully flared for touchdown to 30 feet in the air. It became fully engulfed in a rapidly moving wall of dust. The student and I were thrown forward in the straps as the aircraft elevated upward.

"Probably should take this one around," I thought as I added power.

As the go-around progressed, my mind began to race, seeking a cause to this unanticipated balloon. I didn't have long to wait for the answer since mother nature continued to drop some less-than-subtle hints. In full-power, completely cleaned up, with plenty of airspeed at near mid-field and 500 feet AGL, our aircraft sank toward the runway as if some giant hand was pushing down on it. Instinctively, I increased my pitch attitude to arrest the descent as I rechecked the throttles in mil (no afterburners in the T-37).

My input had no effect as the sink continued and seemed to be accelerating. Increasing the back-stick pressure, I saw through the dust that the ground was rapidly coming up to meet us. My focus quickly changed from a normal go-around to keeping our aircraft from hitting the runway. As I continued to add back pressure in an attempt to break the descent, I realized that standard solutions were not going to correct the strange variables we were encountering. With no good horizon references because of the dust, my attitude indicator became the angle of the canopy rail relative to the ground. If I continued to raise the nose, I would stall the aircraft. But where were the stall indications? Why wasn't the airframe "talking" to me? Surely I would have encountered a stall by now, given the pitch attitude relative to what I thought my airspeed must have been.

Swiftly glancing into the cockpit to crosscheck airspeed with altitude, I saw a 2,000 fpm rate of climb on the VVI. A quick recheck of the ground revealed this wasn't the case since the runway loomed more clearly through the dust. At this point I decided the best course of action was to focus my attention outside the aircraft.

I quickly pushed the stall concerns aside as I continued to raise the nose still higher at what seemed a ludicrous attitude.

The descent rate persisted as the pre-stall tickle that the T-37 exhibits became evident. If I raised the nose any higher, the aircraft would stall. If I relaxed the back pressure, I would be shorting myself on my chances to recover.

Continuing to watch the ground, I was suddenly overcome by the feeling that this was it — we were going to hit the ground. Being well out of the ejection envelope, bailing out was not an option.

With the pitch stuck uncomfortably high, riding the pre-stall tickle toward the ground, engulfed in dust with impact seconds away, I realized all my options were played out and that I was just going along for the ride at that point. Continuing to crosscheck the ground, I began to perceive the descent rate was subsiding as if the giant hand was tiring. Maybe my efforts were paying off, I thought, as I prepared to continue the flight.

As the sink slowed and the tickle began to intensify, I began to release back pressure to keep from stalling the aircraft. As I continued to lower the nose, my focus rapidly shifted to concern over stalling the aircraft into the ground. Although the pitch was returning to a more recognizable, normal attitude, I still felt as if I was walking a tight rope.

The T-37 felt as if it were "mushing" through the air, as if it had just encountered a severe decreasing headwind shear. This was the last hand that mother nature was to play, though. I continued to play the tickle, and the nose continued to lower to a level flight attitude. The aircraft felt as if it was accelerating as I noticed the dust, the pre-stall tickle, and the sink and "mushing" feeling all rapidly dissipating. I cross-checked the ground to confirm that our planned roller coaster ride had leveled off.

As quickly as the incident started, it was over. We were flying in the clear again, although at a much lower altitude than when the whole chain of events began. As we began to

climb away from the ground (which observers later said was approximately 20 feet below us), I wondered what had just happened. At this point the supervisor of flying (SOF) directed the remaining airborne aircraft divert to a nearby airfield because the winds were out of limits.

The evidence indicated that we had probably flown through the full force of a microburst. The next day with my heightened interest on the subject of microbursts, I did some research and found the pieces of the puzzle fit together. We had encountered a dry microburst, a variation that I didn't know existed. I was still puzzled by the extremely high pitch attitude required to avoid the ground impact. Yet, we didn't stall. An FAA advisory circular from January 1979 gave me some real insight:

"When an airplane flies into a downdraft, the relative wind shifts so as to come down from above the horizon. This decreases the angle of attack, which in turn, decreases lift, and the airplane starts to sink rapidly. In order to regain the angle of attack necessary to support the weight of the airplane, the pitch attitude must be significantly increased. Such a pitch attitude may seem uncomfortably high to the pilot. However, a normal pitch attitude will result in a continued sink rate. The wing produces lift based on angle of attack, not pitch attitude. Caution should be observed when a pilot has traversed a downdraft and has pitched up sufficiently to stop the sink rate. If that pilot does not lower the nose of the airplane quickly when it exits the downdraft, the angle of attack will become too high and may approach the stall angle of attack."

I had encountered something very few pilots experience. The microburst occurred quickly and unexpectedly. Decisions had to be instantaneous and correct to survive. By chance, I had done things correctly. Live and learn. Learn and live. □

Capt. Thomas flies the T-37B "Tweety-bird" as a primary flight instructor with the 82nd Flying Training Wing at Williams AFB, Ariz.

## Learn and Live...

*. . . As I reduced power and began to round out for the flare, all hell broke loose. Our aircraft went from about 1 foot above ground fully flared for touchdown to 30 feet in the air . . .*



10

# Who Goosed the Helo?

By Cdr. Dan Ellison

Winter weather presents challenges to aviators of every description: astronauts, private pilots, airline drivers, NFOs, rotary-wing aviators, migratory birds, and . . . even run-of-the-mill jet jockeys. In and around the San Joaquin Valley, the climatic conditions between November and March tend to include many of the aspects of IFR flight that help justify aviation incentive pay. Aviators permanently assigned to the region soon learn to come and go with resolve, while the transients generally just depart with a clear sense of relief.

On a typical winter day, the area's military and civilian airfields experience a cruel irony — mornings with dense fog from the deck to 2,000 feet, which abruptly gives way to brilliant sunshine and a cloudless sky. Afternoons are characterized by persistent, heavy haze. Ceiling and visibility at most airfields often hover just above minimums, thus, flight ops can include a familiar mix of anxiety and euphoria, a few moments of heavily restricted visibility sandwiched around an hour

or two of CAVU to the moon. Occasionally, the anxiety gives way to concern, alarm and other emotions, as was vividly illustrated a few years ago at NAS Lemoore.

The station flight schedule routinely called for the duty Huey crew (two pilots and three aircrewmen) to make morning and afternoon search and rescue training flights in nearby mountains. Normal profile was to depart IFR on top, proceed west to the training area, practice SAR procedures for about two hours, and return, IFR, if necessary.

On this particular morning, everything went well. The crew made an IFR departure with the field calling 300 over and one mile visibility. The HAC reported he was going into the overcast as he passed 250 feet on a normal climbout.

Shortly afterward, he reported a midair with an unknown object, possibly a large bird. The helo continued to climb, and the gauges indicated normal power; but although the pilot's windscreens were still in place, it had been shattered by the impact. With no way to determine additional damage and the aircraft fortunately still flyable, a GCA to the runway was the pilot's choice as the best and quickest way to get safely on deck.

As base ops moved into the emergency mode, checks with the tower and Approach determined that no other aircraft had been reported in the vicinity of the SAR helo. Other departures were held as the crash crew moved into position while a growing team of ops, maintenance and safety personnel began to speculate on what could have caused the mishap and how they might help the crew.

Downwind at 1,000 feet, the helo crew certainly had their hands full. Transition to GCA control had been made without difficulty, but the normal instrument approach speed of 90 knots could not be maintained due to the damaged windscreens. Even a speed of 60 knots threatened to collapse the plexiglas, and the HAC eventually elected to have the crew chief lean forward and hold the windscreens in place. He then flew the approach down to minimums, but was dismayed when he did not break out.

Recognizing that this probably wasn't going to be his day, the HAC executed a missed approach and requested vectors to on-top, forecast to be 1,500 feet. Still unaware of the cause of the midair or the extent of the damage, he intended to clear the overcast, proceed toward the training area and land at any available clear site. Minimizing power changes, he established a moderate rate of climb through 1,500, and then 2,500, still solidly IFR. Passing 3,500, he requested, with just a slightly resigned tone of voice, any accurate report on the top of the overcast. A couple of minutes later, he belatedly discovered it, himself, and with some relief, turned west toward the foothills.

Meanwhile, base operations was experiencing the kind of turmoil, teetering on the brink of frenzy, which often breaks out when the uninvolved (but well-meaning) seek to overcome the unexpected. Proposals for assisting the helo included flying a GCA to minimums and probing for the deck, trying an instrument autorotation to the runway, and entering holding until the fog lifted. Ultimately, reason prevailed and the pilot at the controls — who was enduring well despite some pretty adverse odds — was supported in his decisions.

Shortly after the helo executed its missed approach, field support and fire department personnel reported that the departure runway and adjacent areas were "FODed" by large white birds. Within minutes, Ross geese (similar to the more common Snow geese) weighing 2 to 3 pounds, had been collected, a number which indicated the helo had collided with a sizeable flock of large birds. Of note, two of the geese survived the impact with only broken wings. Unfortunately, no one at base ops had the presence of mind to record the geese's account of the mishap, but it probably would have been at least as compelling as the helo crew's story.

Except for the dead geese, the story not only had a happy ending, but some interesting side notes, as well. The crew and helo finally made a safe landing and shut down in the training area. When the weather improved, a maintenance crew flew to the site and with some difficulty, informed a rather incredulous SAR crew of the magnitude of the birdstrike.

A thorough inspection of the damaged helicopter revealed impact marks on one engine intake, a cabin door and the tail pylon. But no structural damage was discovered, and the aircraft was returned to base. Charges against the pilot for taking game birds without a valid waterfowl stamp were briefly considered but dropped when he apologized to Ducks Unlimited.

As with most mishaps, this one contained valuable lessons for a broad spectrum of the aviation community:

- Radar contact doesn't always guarantee midair avoidance.

- Birds also fly IFR, but unlike other aviators, they usually don't file.

- Don't take an abort GCA for granted. Arrival minimum may be below very recently observed takeoff conditions.

- Know NATOPS but stay innovative and flexible in emergencies — the worst may not have happened yet. Postscript: The base aviation safety officer ultimately became an expert in birdstrike facts and figures. A good samaritan (the wife of the assistant air ops officer) nursed the two injured geese back to good health, and they were eventually released on a local pond. And within a few months, the pilot, Lt. Kurt Bierkan, was selected as CNAP Pro of the Week for his superb airmanship after losing an engine on takeoff.

Cdr. Ellison is assigned to the U.S. Space Command in Colorado.



# A Safer Bet

By Lt. John C.P. Fristachi

ALMOST invariably, carrierquals turn out to be painful. Compound a night CQ with typical east coast springtime weather and an inexperienced ship, and you can bet on pegging the entire squadron's fun meter.

After four nights of cancellations yielding one night trap for the *entire* squadron, we were reluctant to give up hope on our final chance for a qual, regardless of the fact that it was 100 1/4, and there were thunderstorms with visible lightning surrounding the field.

Thus, amidst the typical hooting and haranguing of the fighter JOs, my RIO and I manned up. As the CO's wingman, I felt we had a good chance of getting airborne.

In Maintenance Control, the book looked OK with only minor light gripes and anti-skid inop. Since I never used it anyway, that particular gripe didn't bother me. The previous crew still had to debrief maintenance, but they had called the jet up, and I decided to talk to them, myself.

I met the previous RIO on my way out, and he told me the CADC had kicked out once during their hop, but had reset and had not given any more trouble. During our post-start checks, the anti-skid still BIT-checked bad, but again, I thought, "Who uses anti-skid at the boat?"

The showers picked up as we taxied to the hold-short, and the lightning show was nothing short of spectacular. After a 45-minute delay, we decided that the CO would launch as a weather recce while I waited. If conditions were favorable, we would meet at the ship. The rain had subsided, but the lightning was still frequent. After watching the skipper's takeoff and climbout, we decided that we, too, could go, and took the runway. Because of the standing water on the runway, we decided to use military only, but left the flaps up.

The run-up looked good, and we were finally rolling,

100 knots, nosewheel steering disengaged. Boy! It takes a long time at mil — 120, 130...thump! Suddenly, the yellow glare in the cockpit was dazzling. I looked down to see about half of my caution/advisory panel illuminated. What looked like a catastrophe was merely a CADC failure, but at 130 knots, there's not much time to analyze systems.

"We're aborting!"

A fine mess! There I was, aborting on the short runway with carrierized tires, no anti-skid, standing water, and only four of eight spoilers available since my flaps were up.

Throttles, idle. Speedbrakes, extend. Stick, aft.

"Easy there," I told myself, "keep the nose on the deck."

Now the tricky part, brakes, as required. Boy! Did I require them! Hook. Well, there goes the three board, but I'm slowing down. Let's just wait a second. The tires didn't blow, and I was under control at the arresting gear. Whew!

I thought, "It must be my lucky night." However, I was told about the CADC problem, and I was aware of my anti-skid being inoperative. I certainly knew it had been raining. So, why did I elect to take off with no flaps from the short runway? Probably because that's the way I usually take off in daytime in good weather.

OK, so how about the "good stuff"? An immediate abort decision and communication with my RIO. Adherence to NATOPS boldface procedures, and judicious use of the brakes to avoid skidding and hydroplaning. (The carrierized tires helped out there.)

So, was it luck or skill that got me stopped and under control? Probably a little of both. But, when it comes to a choice between luck or four extra spoilers, a lower rotation speed, and operating anti-skid on a dark, wet night, I'll go for the latter from now on. It's a safer bet!

Lt. Fristachi is an F-14 pilot with VF-103.

(New procedures call for the anti-skid to be selected on all takeoffs if the BIT checked good. — Ed.)

# How a TV Show Saved My Fanny

By Maj. T.W. "Hacksaw" McReynolds, USMC

MY Phantom squadron had been deployed to Tyndall AFB, Fla., for an extensive ACM work-up. We had been flying two missions a day. As a new guy with 120 hours in the F-4 (2,100 hours total time), I had become comfortable in the old F-4N.

Finally the tour came to an end, and we were ready to return home. Our flight to MCAS, El Toro, Calif., had an 0700 brief. I had gotten up early at the BOQ and tuned in the TV show, "Good Morning America." The weatherman, showed a map of the United States, as he talked about the weather across the country. I saw that we would only have to cross one significant front, which was sitting on top of Barksdale AFB, La.

The squadron was returning in three divisions. I was in the first division. The CO, a RIO, was giving a young lieutenant his section leader check since he would lead the division home. The entire brief went like this: "We'll use the dual runways. Do simultaneous section go's. Wind won't be a factor. We'll push 'em up. Cruise at 550 plus. Launch 'em." (Sound like gethomeitis?)

The young flight lead went in for the weather brief. He told us the weather was "no factor." Preflight went normal. After start, the plane captain noticed a fuel leak in my left wing fold area. We had to run it up to 85 percent for about 20 minutes while a mechanic tried to isolate the leak. The rest of the flight was becoming impatient. After all, I was eating up all those valuable minutes they had saved by drastically shortening the brief.

The takeoff was normal, and the flight pressed on toward Tinker AFB, Okla., at 550 KTAS plus. The Phantom unfortunately does not have a gauge to measure external fuel. I should have had 4,000 pounds of external fuel; either only 2,000 pounds would transfer or my external fuel tank had only been half full. My RIO and I started calculating our fuel requirements on a continuous basis with the hope we would have enough to get to Tinker.

We figured we would get there just above emergency fuel, but our fuel gauges soon told us that we would have to divert. The flight lead, the guy that got the weather brief, told us to go to Barksdale AFB. I remembered what the weatherman had said on "Good Morning America." NAS Dallas, Texas, was a little farther but, according to the TV program, Dallas weather would be better.

I opted for Dallas and declared emergency fuel as we flew our bingo profile to Big D. We requested weather information from Dallas, but it was not immediately available. We were 50 miles out with a low fuel light when we received this information:

"Dallas is 100 overcast. Quarter-mile visibility with rain and fog."

"Ask for the weather at Carswell AFB, Dallas-Love Field or anywhere because I'm looking for a road," I told my RIO.

Weather at Carswell was reported to be 500 overcast, half mile visibility with fog. I hoped we had enough fuel to shoot the approach. We certainly did not have the fuel to go missed approach. The controller gave us a flawless emergency fuel precision GCA. At our decision height, 850 feet MSL, we were on glide slope and on course, but we were still in the goo. At 750 feet MSL (100 feet AGL), the controller asked if we had the runway. I responded negatively.

A few microseconds later the approach lights were going between our legs, and we were on the runway. We had 600 pounds of fuel left as we taxied clear of the runway, not much for the fuel-hungry Phantom.

Once in base ops, I decided to call Barksdale because I had become curious about what the weather was there. They told me it was zero-zero and had been that way all day. Mark up a "1" for TV and a flat "0" for our flight lead.

The rest of the division continued to Tinker near Oklahoma City, even though the weather there was not nearly as good as forecast. The flight lead asked for individual PARs (precision approach radar). He hadn't noticed in the en route in-flight supplement that PAR was not available, but they did have ASR (airport surveillance radar). The flight lead did not think to ask for individual ASRs.

The three Phantoms started a high TACAN (tactical aerial navigation) approach in fingertip formation. At eight miles out in the clouds, the lead lost his TACAN. He passed the lead to Dash Two, who was totally disoriented and had been doing his best just to keep sight. The approach ended up looking like a fleur-de-lis on final with everyone having a low fuel light.

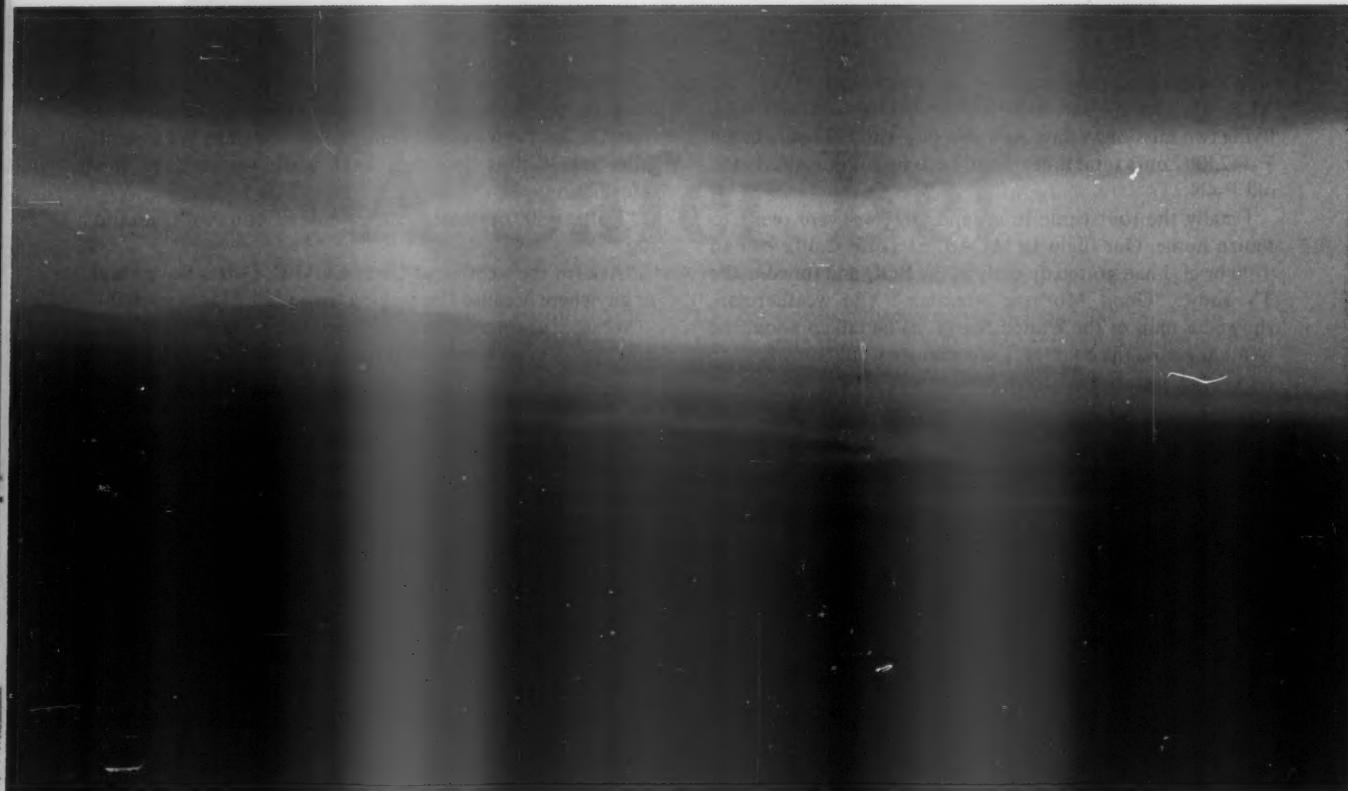
Through this experience, I learned there is no substitute for detailed preflight planning, thorough briefs, knowing your aircraft and watching the weather report on "Good Morning America."

Maj. McReynolds is the F-4/F-16/F-21/OV-10 analyst in the Aircraft Operations Division, Naval Safety Center. He has flown F/A-18s, F-4s and OV-10s.

*The CO sets the standard. In this case, he was setting an abysmally low standard for his JOS. This incident illustrates the sorry consequences. — Ed.*

# Close Encounter With

By Lt. Bob Broadston



THE weather report for our pilot proficiency flight was about fleet average for a fall day on the West Coast: thunderstorms and rain. The high desert and San Joaquin Valley were calling for slightly more than marginal VFR, and we elected to bounce at Palmdale and NAS Lemoore.

Preflight went normally, and after the usually hectic takeoff and departure from the San Francisco Bay area, we settled in for the flight to Palmdale. Using our on-board radar to dodge the heavier cells, we made our way toward Palmdale, finally breaking out of the heavier stuff about 50 miles north of the field. Edwards Approach reported isolated cells, but VFR conditions existed over most of the area.

# **h a Microburst**

Approach vectored us for a straight-in ILS and passed a report of a shower at the field. Rolling out on final, we saw the cell, and things began to get interesting. The cell covered the entire field, but did not totally obscure the runway. Around its periphery, we could see swirling dust where the downdrafts were hitting the ground. Neither approach or tower had any reports of downdrafts.

Realizing that this might be a microburst, the plane commander elected to continue the approach, but at about 1,500 feet AGL. As we approached the field, we could see that the worst of the dust swirls were around the middle marker. As the off-duty pilot, I was able to snap a few quick photos during the approach. As we entered the cell, we experienced moderate turbulence, about a 10-knot increase in airspeed, and a 2,000-fpm rate of descent. Passing out the other side, we lost about 15 to 20 knots, and felt the same turbulence and rate of descent. We passed a PIREP to the tower about the size and strength of the downdraft. We held briefly until the cell passed and then completed the remainder of the flight without incident. Back at home plate, I talked to the weather guessers who confirmed we had, in fact, tangled with a microburst.

We were lucky. The conditions that day let us see the microburst and successfully avoid it. In the process, all three pilots got valuable training and a new respect for thunderstorms and convective weather.

We could have been very unlucky. Had we been on the normal ILS profile, we'd have hit the microburst just at decision height, dirty and slow; the ride would have been much worse. It could have even been fatal. There are some important questions to be asked. What if the field had been at minimums, and nobody was aware of the microburst's presence? What if we had been returning from an all-night tactical event, tired, eager to land? What if, what if? ▶

Lt. Broadston is a PPC with VP-9, and is the squadron flight officer.

## **"What If" Continued**

By Lt. Ken Underwood

**WHAT IF?** In recent years, civilian aviators have placed a lot of emphasis on aircrew training for microbursts. Commercial airlines have developed standard operating procedures for both takeoff and approach. This has come about because of the increased number of civilian mishaps attributed to microbursts.

These mishaps include:

- 24 June 1956: BOAC Argonaut mishap at Kano, Nigeria. 32 killed/11 injured
- 30 January 1974: Pan American 759 mishap at Pago Pago, American Samoa. 96 killed.
- 24 June 1975: Eastern 66 mishap at JFK, New York. 112 killed/12 injured.
- 7 August 1975: Continental 426 mishap at Denver, Colorado. 15 injured.
- 14 May 1976: Royal Jordanian 600 mishap at Doha, Qatar. 45 killed/15 injured.
- 23 June 1976: Allegheny 121 mishap at Philadelphia, Pa. 86 injured.
- 3 June 1977: Continental 63 mishap at Tucson, Arizona. No injuries; power line severed.
- 9 July 1982: Pan American 759 mishap at New Orleans, La. 152 killed/9 injured.
- 2 August 1985: Delta 191 mishap at Dallas-Ft. Worth, Texas. Multiple casualties.

These mishaps brought on an aggressive attempt by the airlines to eliminate this type of mishap through pilot training and standard operating procedures. How is a microburst addressed in your NATOPS? What if all NATOPS manuals contained a section describing windshear in detail and gave standard procedures to cope with microbursts for each aircraft? A future Navy or Marine mishap resulting from low-level windshear might be avoided. That's what if.

Lt. Underwood is the P-3/C-9/C-130 analyst for the Naval Safety Center. He flew P-3Cs with VP-10.



"If we get struck by lightning, will we blow up or just lose a panel or two?"

# I'll Never That

By Lt. Mike Bowers

approach march 1989

OUR flight was preceded by a full-blown weather brief. The forecast was typical for the late summer/early fall. Everything was clear with the occasional cumulus-nimbus buildup, typical of the Southeast and especially the Gulf Coast. No severe weather was forecast. As highly motivated and dedicated naval aviators, we donned our speed jeans, strapped on our training aids and hurtled two KA-6Ds into the clear blue sky.

The early part of the flight went as advertised. We practiced good section procedures, and a beautiful sunset terminated behind us. As the pinkness of dusk turned into the blackness of night, our plans began to change. Our wingman decided that he wasn't comfortable with two things — his gas remaining and distance remaining to NAS South. Since there was no way he could make it to his destination, he trailed his hose, topped us off and refilled in the air to a closer airfield. We could now easily make it to Plainstate AFB for gas and then to NAS South. Our flight of two separated, and as our wingman descended, we continued on our way.

With our two aircraft no longer on the same center frequency, and no moonlight to comfort us, our Intruder went into the clouds. You know you're night IMC when the only glow you see is the eerie pulsing glow that the anti-collision light makes in the clouds.

Within two or three minutes, my pilot and I were shaken by turbulence of ever-increasing severity. We were awed by St. Elmo's fire that danced on our windscreen and down the leading edges of our wings. Then bad things started happening quickly. The turbulence became severe. I noticed a buildup of ice on the aircoop just outside the cockpit. A bolt of lightning flashed through the night sky. "Holy Mary!! That was close!" I wailed to my pilot who was judiciously squeezing his control stick with a gorilla grasp. He merely nodded his agreement. I called ATC and requested a climb and vectors out of our predicament. My pilot again nodded agreement; he too had noticed the icing.

Center helped as much as possible by allowing us to climb unrestricted to get out of the icing. But they could

only offer minimal help in directing us out of our predicament. Lightning doesn't show on ATC radar — only precip, and that was everywhere. As we climbed through FL300, cringing with each new bolt of lightning, a comforting voice came over the back radio, "Hey 515, how's the weather up there?"

"About what you'd expect in a monsoon, typhoon or hurricane," I said. My reply was an unnecessary gesture as I was to learn later, because my ex-wingman was dealing with the same storm 15,000 feet below.

The tension was relieved just as quickly as it started. Just after reaching FL300 and once again reviewing my IROK procedures, we left the rain, wind and terror for the clear night sky. It was over. We had lived through it, and we were at least 10 years older for it. The remainder of our flight was uneventful. We phoned our wingman. He had made it safely to his destination. Leaving the terminal that night, my pilot and I turned to each other and said, "We'll never do that again!"

Never say never. Just recently, after a cruise and 800 hours in the Intruder, I did it to myself again. My pilot and I were on our last leg when the trouble began. Our cabin pressurization was not operating, limiting us to 10,000 feet MSL. Our compass was precessing and my dependable radar chose to die. Wonderful! I thought I had been punished enough, but it was happening again. The night sky surrounded us and a line of CBs confronted us, but we were past the halfway point. I was a bit more vocal this time, with questions such as, "If we get hit by lightning, will we blow up or just lose a panel or two?"

After what seemed like a lifetime of hail, heavy rain, light shows, blood, sweat and tears, we were clear and nearing our destination. Once again those familiar words were on my lips: "I'll never do that again!"

The outcome of my first thunderstorm penetration was not serious. We just lost some leading edge tape from control surfaces. However, our Intruder did not fare as well the second time. We lost most of the paint from our radome and a chunk of fiberglass from our right intake. There was also other minor damage to the aircraft.

Several lessons can be learned from these experiences:

- Never fly in an area of forecast thunderstorms without a weather radar or the ability to fly over them.
- Don't take a forecaster's prediction lightly; dig for all of the available information.
- If you do end up in a thunderstorm, follow the NATOPS procedures for your type of aircraft to the letter and expedite your exit from the storm.
- If you ever go into a thunderstorm, you'll never want to again!

Lt. Bowers is NATOPS officer for VA 95 at NAS Whidbey Island, Wash.

# Do Again!

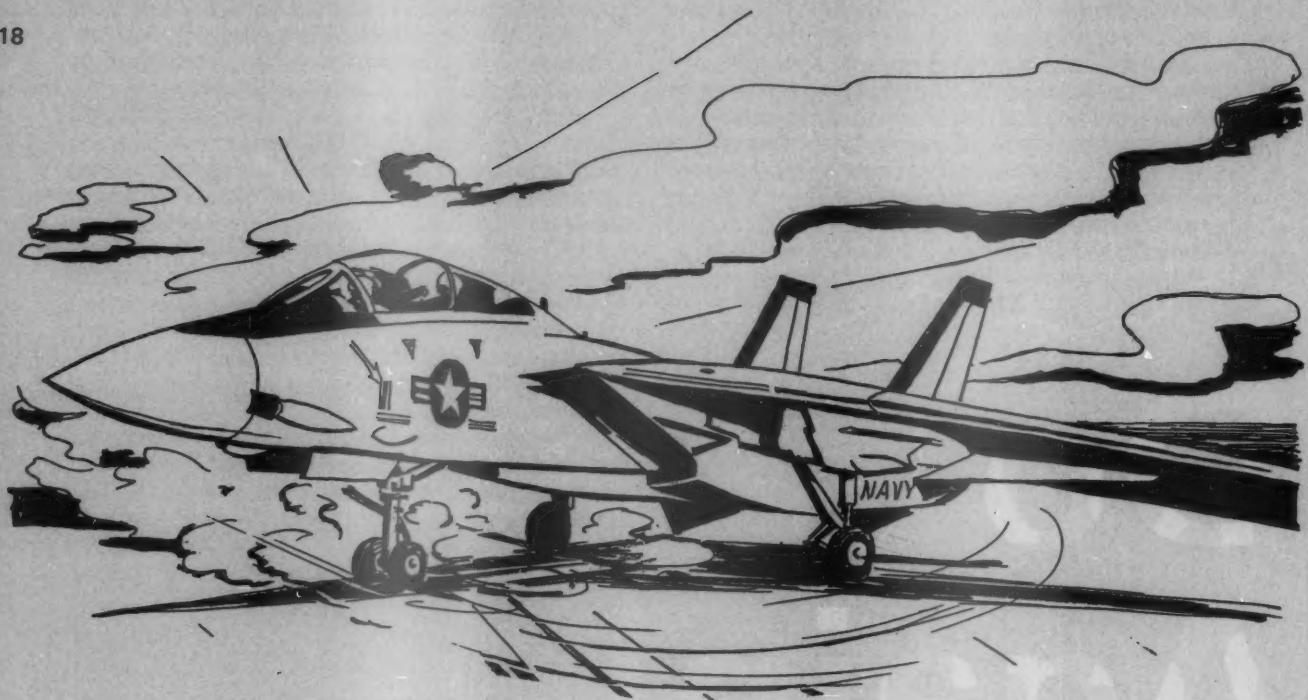
approach/march 1989

# The Flight That Never Was

By Lt. Randy Addison

TO openly challenge a senior flight leader on the subject of flying was taboo. As the most junior pilot in the squadron, who was I to question the judgement of a man with 15 years of flying experience?

Our mission was not complex. We were to launch four Tomcats from homeplate and fly out to the ship for a short at-sea period. The flight lead, who was anxious to brief the CQ portion of the hop, glossed over the shore-based procedures. I had participated in large formation takeoffs before and was well acquainted with the mechanics of the launch. The lead called for a full-afterburner, no-flap takeoff with a 10-second interval to separate each aircraft.



Several hours before the brief, a heavy rain shower had passed by the field. NATOPS says that in the event of standing water on the runway, a military-power, full-flap takeoff is required. This configuration decreases the chance of an afterburner blowout or compressor stall from water ingestion. When this contingency was not briefed, I got a little apprehensive. No one else in the flight seemed overly concerned, so I did not bring this point up. I did not want to be labeled a nervous fighter pilot.

As the flight taxied to the duty runway, I looked up and down the runway for large areas of water. I didn't see any and my fear subsided. Still, I was not totally convinced the runway surface was clear.

After the standard wait in the hold-short area, the first three F-14s took the runway. As Dash 4, I was briefed to taxi into position as the lead aircraft rotated. This was common practice since the runway's width would not allow four planes to position for takeoff at the same time.

At the appropriate time, I took the far left side of the pavement. Because it was essential that I be in position, ready to go, in a limited amount of time, I didn't have a chance to double-check the runway ahead for large puddles. When Dash 3 lifted, I released the brakes and staged full zone-5 afterburner.

The aircraft quickly accelerated, and as I approached my rotation speed of 140 knots, I saw a large pool of water directly in front of

*The aircraft quickly accelerated, and as I approached my rotation speed of 140 knots, I saw a large pool of water directly in front of me. There was no way to avoid it. The nosewheel sliced through the puddle, and the left afterburner blew out.*

me. There was no way to avoid it, and when the nosewheel sliced through the puddle, the left afterburner blew out. The aircraft veered violently in the direction of the failed engine. I instinctively fed in right rudder and retarded the throttles smoothly to idle.

My RIO backed me up on airspeed and runway remaining as I went through the aborted takeoff procedures. Six thousand feet of pavement remained. I was aware I had a heavy fuel load and carrier pressurized tires. We elected to make a long field arrestment, and I quickly lowered the hook. It was now simply a matter of engaging the gear on centerline — or so I thought. With 4,000 feet remaining, and airspeed decaying below 80 knots, I began to apply light brake pressure. Immediately, the left tire blew. Again, the plane veered to the left. Fighting to keep the Tomcat on the pavement, I found myself reacting to the third boldface emergency of the day.

Closing on the long-field gear, my fear of leaving the runway lessened. As the aircraft engaged the pendant, the purchase cable reeled out from the arresting gear engines. The comforting deceleration was shortlived as, soon afterward, I watched the pendant part. The worn mainmount wheel assembly on the left side had cut the cable in two. Our stricken F-14 finally came to rest 500 feet from the departure end of the runway.

Riding back to the hangar on the bed of a Follow-me truck, I had chance to reflect on the day's events. The brief quickly came to mind. Had I raised the issue of standing water, this incident probably would not have occurred. As it turned out, the two other wingmen were also worried about water on the runway, but, out of fear of overstepping their authority as wingmen, they didn't say anything. We thought, and wrongly so, that a junior wingman should be seen and not heard. The most important lesson I learned from this experience is that when it comes to safety, there is no seniority.

Lt. Addison recently completed a tour with VF-142 where he served as assistant safety and NATOPS officer.

*One of the subjects highlighted in the Naval Safety Center's Aircrew Coordination Training Course is the crew members' individual responsibility for the safe conduct of the flight. The course offers suggestions on how the junior member can approach the senior and communicate his concerns without offending the senior or without being labeled a sissy. — Ed.*

Confessions may be good for the soul, but they are bad for the reputation.

Thomas Robert Dewan  
Distiller and Raconteur



Left to right: Lt. Frank McCulloch,  
Lt. Pete Kind

**Lt. Pete Kind  
Lt. Frank McCulloch  
VA-75**

Lt. Kind (pilot) and Lt. McCulloch (B/N) were scheduled for a low-level tactics flight over the Mediterranean near the southern coast of France. Following preflight and man-up, the crew taxied onto the catapult for the launch. While in tension, Lt. Kind performed a normal cockpit wipeout, checked his engine instruments and saluted the catapult officer. Just prior to the stroke, Lt. Kind observed the right-engine-fire light flicker and was about to broadcast a "suspend" call when the catapult fired. Halfway down the track, the fire light illuminated steadily. Lt. Kind quickly raised the gear and jettisoned external stores to lighten the A-6 to single-engine flying weight. He climbed to 500 feet, secured the right engine and activated the HALON extinguishing system. With the fire light still on, Lt. McCulloch assisted with PCL procedures and advised the tower of their situation.

While the ship's crew quickly prepared the flight deck for landing, the crew dumped fuel to a single-engine landing weight and set up for a visual straight-in approach. With reduced thrust and the fire light still illuminated, Lt. Kind brought the Intruder aboard for an OK 2-wire landing.

**Lt. Kenneth M. Pecoraro  
Lt. Robert G. Darling  
Lt. John J. Tierney  
Lt. Michael C. Troici  
Lt.jg. William S. Wales  
VAW-124**

During a routine operational flight from USS *Theodore Roosevelt* (CVN-71), the E-2C experienced a complete loss of electrical power during the clearing turn off the catapult. Lt. Pecoraro (aircraft commander) correctly responded by attempting to reset both generators. This action failed to provide power, and he engaged the emergency generator, to no avail. The switches were then secured.

Meanwhile, unknown to Lt. Pecoraro and Lt. Darling (copilot), the Main Power Distribution Panel in the aft end of the aircraft had exploded

# BRAVO ZULU

in flames in front of Ltjg. Wales (radar operator). Ltjg. Wales immediately moved to extinguish the fire with the help of Lt. Tierney (mission commander). The fire was quickly brought under control, though the panel continued to spark and the cabin was filled with dense smoke. Lt. Troici (air control officer) opened the aft ditching hatch to clear the smoke from the aircraft.

Lt. Pecoraro turned downwind as Lt. Darling opened the door to the aft cabin to determine the situation there. The cockpit filled with smoke, and the two pilots began fire-of-unknown-origin procedures. They made two NORDO passes, with the arresting hook down while rocking the aircraft wings.

As the smoke cleared from the aft cabin, the fire in the Main Power Distribution Panel reflash. Ltjg. Wales emptied the rest of his fire extinguisher and went forward to grab the second extinguisher from the cockpit. This was the pilots' first indication of what was happening in the tube and of the status of the three NFOs.

The carrier began an emergency pull forward. After two foul deck wave-offs, Lt. Pecoraro began considering bailing out if he was unable to get aboard and the fire became uncontrollable. He asked Lt. Darling to tell the crew, and the copilot did so with hand signals. He also verified that the fire was under control.

After one more foul deck wave-off, Lt. Pecoraro trapped aboard and secured both engines. All hands rapidly abandoned the aircraft, and the ship's crash crew made sure the fire was out.

Lt. Pecoraro, Lt. Tierney and Ltjg. Wales received Air Medals, and Lt. Troici and Lt. Darling received Navy Commendation Medals.

Left to right: Lt. Michael Troici,  
Ltjg. William S. Wales,  
Lt. John Tierney,  
Lt. Kenneth M. Pecoraro,  
Lt. Robert G. Darling

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Left to right,  
1st Lt. Rex Pierce, USMC,  
Capt. Stewart Bernard, USMC,  
Sgt. Oliver Bernal, USMC

Capt. Stewart Bernard, USMC

1st Lt. Rex Pierce, USMC

Sgt. Oliver Bernal, USMC

HMLA-267

Stinger 00 departed MCAS El Toro for a 90 nm trip to San Nicholas Island for a passenger pickup. The UH-1N was 20 miles west of Catalina Vortac, in night IMC conditions (no visible horizon), when the master caution light illuminated along with the combining-gearbox oil-pressure light. A crosscheck of the C-box oil-pressure gauge indicated 35 psi (40 minimum). Capt. Bernard (PIC) took control and made a 180-degree turn toward Catalina Island. He instructed 1st Lt. Pierce (copilot) to monitor the C-box oil-pressure gauge and advise the PIC of each significant drop in oil pressure. The pressure continued to drop at approximately 2 psi per minute.

Capt. Bernard contacted Los Angeles Center and declared an emergency. He then told Sgt. Bernal to prepare the aircraft for possible ditching and had 1st Lt. Pierce check all information concerning the Catalina Airport. ATC had Stinger 00 squawk 7700 and instructed all other aircraft to clear the frequency.

Capt. Bernard requested radar vectors to Catalina Airport (elevation 1,602 feet) and climbed to 2,100 feet MSL. ATC gave erroneous information, stating that the airport was 1.5 miles south of the Vortac. After a brief search in the dark, the crew was unable to find a suitable landing site due to the mountainous terrain. Capt. Bernard decided to try to locate the Avalon Heli pad. At this point, the oil pressure was approximately 5 psi. Passing the Avalon Casino, Capt. Bernard spotted a narrow but lighted pier, and with the oil pressure now at zero, he decided to land on the pier rather than risk continuing to the pad. With guidance from Sgt. Bernal, Capt. Bernard made a successful approach and landing with less than two feet between the main rotor arc and light stanchions on either side of the pier.

Postflight inspection determined that gearbox failure might have occurred only minutes later.

Cdr. Mike Murray  
Lt. Terry Rucker  
AW1 Joe Turner  
AWAN Gene Theriot  
HS-5

While conducting a daytime ASW screen during a major fleet exercise, Cdr. Murray and Lt. Rucker saw indications of loss of transmission oil and low pressure. Cdr. Murray began low and slow flight back to USS *Dwight D. Eisenhower* (CVN-69) alerting the ship of their predicament. As the carrier closed at flank speed, a howling noise came from the aft transmission area. Faced with no other option, they landed the SH-3H in 6-to-8-foot seas.

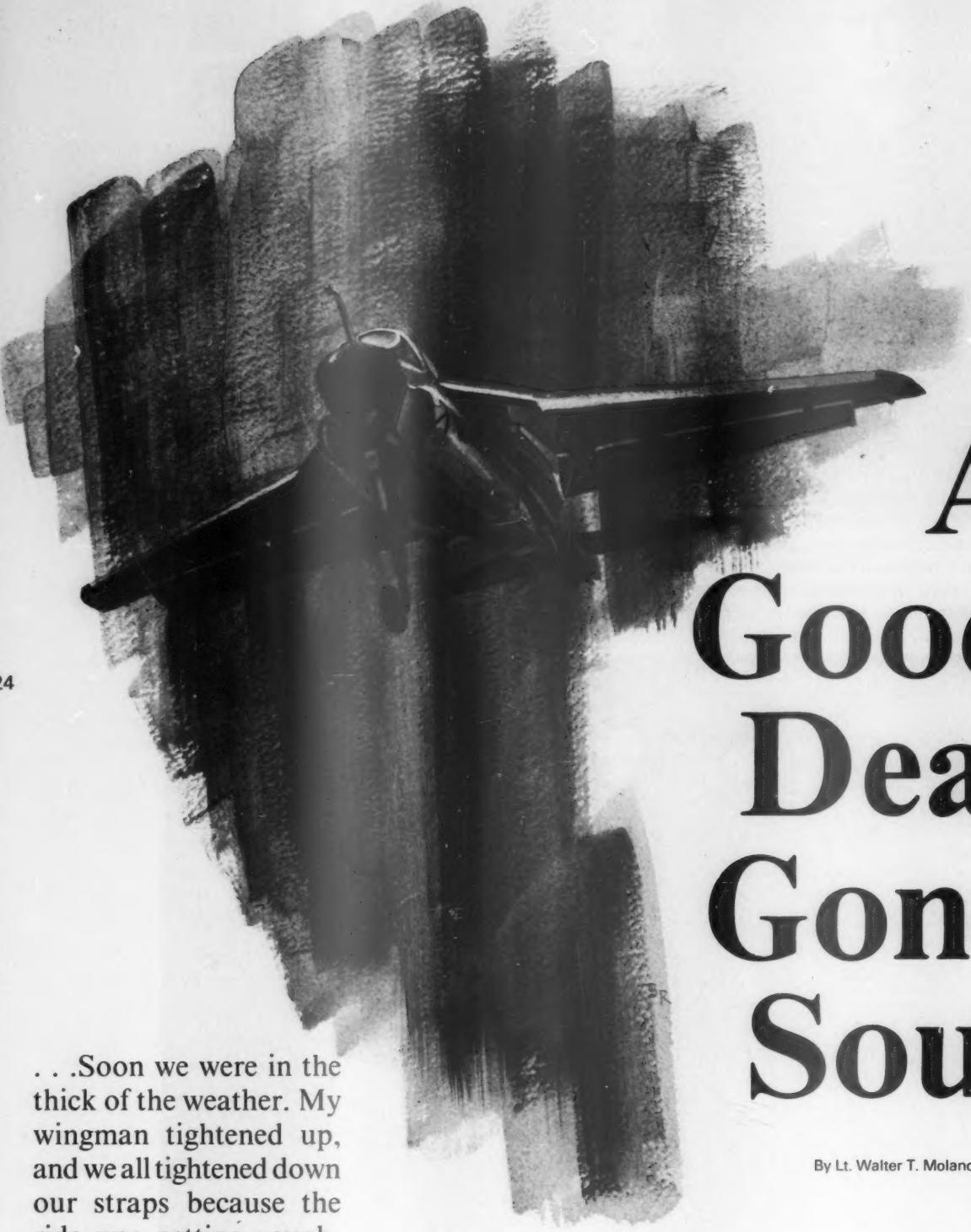
As waves broke over the windshield, Cdr. Murray and Lt. Rucker kept the helicopter upright for 12 minutes while evaluating the performance of the Emergency Lubrication System (ELS). With the "Ike" now five miles away, the transmission howling noise had disappeared, and the ELS appeared to be working.

Cdr. Murray lifted the helicopter from the water and transferred control to Lt. Rucker, who executed a minimum power approach and landing. It had been Cdr. Murray's third forced water landing.

*This "save" could easily have resulted in a mishap if the crew lacked sufficient skills in seamanship. — Ed.* ▶

Left to right,  
Cdr. Mike Murray,  
Lt. Terry Rucker,  
AW1 Joe Turner,  
AWAN Gene Theriot





# A Good Deal Gone Sour

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...Soon we were in the thick of the weather. My wingman tightened up, and we all tightened down our straps because the ride was getting rough. The radar now looked like a big wad of cotton..

By Lt. Walter T. Molano

WE were in the middle of Medium Attack Strike Training. We had spent the past two weeks in the classroom, and now we were scheduled to start our flying phase. The weather had been poor early in the day, but suddenly it cleared up. The SDO told me the bombing mission was now on.

My pilot and I cornered the operations officer and talked him into letting us get one of the strike-training syllabus hops out of the way. I had been crewed with a nugget stick. This hop was a good opportunity for him to work on his section qual. The Ops O talked to the skipper and got us cleared to go. We found another JO crew and sat down for the brief.

Walking to our A-6E, we were joking about how lucky we were to get this good deal. The sky was clear, but in the distance you could see some clouds starting to build. The weather briefer had given us a favorable forecast, but he also reported a chance of thunderstorms.

We were soon airborne as a flight of two. As we turned north toward the entry point of the low-level, I noticed there now was a solid cloud layer at 5,000 feet. Departure control gave us a descent to below the layer, and we found that we still had legal weather to fly the low-level. As we approached the entry point, departure control told us that there were thunderstorms building to the west. Since they did not specify where these storms were building and it looked clear, we decided to press on.

We hit the entry point, and I

pushed Dash 2 to a combat spread position. As we turned west, I looked at the radar scope and saw a solid wall of thunderstorms strung along the Chesapeake Bay. I pulled my head out of the hood and saw an impressive lightning show just ahead of us. Cancel phase one. We set into operation the second phase of our mission to try to complete the bombing portion of the hop. I told our wingman that we were going to cancel the low-level and proceed VFR to the target. A small comm drill with ATC ensued, but we straightened it out and proceeded south.

As I looked at our radar, I saw what earlier had been clear skies was now covered by thunderstorms. There were no holes for us to pass through, and our path to the target was sealed off. After talking about the situation, we decided to move on to the third phase of the hop, which was IFR section approaches and section work.

I relayed our intentions to departure control. They felt obligated to put us through a vector drill. What followed was a myriad of altitude changes, vectors, speed reductions and frequency changes. Now the thunderstorms were building up all around us. It was like going around in a maze with the walls closing in behind us.

Soon we were in the thick of the weather. My wingman tightened up, and we all tightened down our straps because the ride was getting rough. The radar now looked like a big wad of cotton.

This mission was no longer fun. Our "good deal" flight had

just evaporated. What was left was a nightmare in the middle of a thunderstorm. Blue flashes of light were everywhere, and rain pelted our aircraft. I could get a glimpse of our wingman only every few seconds, and the controller seemed to be trying to give us a vector into more storms. My patience with the controller was gone. All I wanted to do now was to get on the deck, and I firmly expressed this desire to the controller.

We split up and started home. We still had to fly through another line of heavy weather. My eyes were glued to the instruments. I was amazed that the altimeter and airspeed indicator fluctuated up and down so erratically. I felt my insides screwing up as we were coming to the most crucial part of the approach. As we flew our approach to minimums, we were about to be waved off when the runway broke out right ahead of us. It was the best sight I had ever seen.

As we were rolling toward the end of the runway, the aircraft started to skid and yaw to the right. Just as I thought we were going to skid off the runway, the skidding stopped, and we continued back to the line. We made it, but it still wasn't over. Walking back to the hangar, the skies opened up, and we got soaked to the bone. I hadn't fully realized the irony of this "fun" flight until we were filling out our paper work in maintenance control, and we saw that the entire flight had taken only 18 minutes. The "good deal" had been a near disastrous drill.

Lt. Molano is an A-6E NFO, stationed at NAVPRO at Calverton, N.Y. The incident occurred on his first tour with VA-35 at NAS Oceana, Va.

...“Center, I’m iced over and losing airspeed”...

# How Prepared Do You Think You Are?

By LCDR. Richard N. Schwenk

WE were on the last part of our journey from NAS California to participate in a major exercise, and the trip was a challenge. Our ERA-3B had all the power that two J-57s could provide, but it had the drag index of Dorothy’s flying house in the Wizard of Oz.

That summer morning we were taking off on an 8,000-foot runway from NAS Florida to NAS Caribbean. We had arrived the day before but were unable to depart because along our way were WWs (willy willys, severe weather warnings).

The first thing we did that

morning was to check the weather. We talked to the forecaster, who said that at FL 300 we would be above all the clouds and would easily pick out the building thunderstorms that had brought WWs yesterday.

We decided to proceed. Our radar was inoperable, but from a previous tour in Florida, I thought I knew how to stay clear of these summer storms. The most direct route to NAS Caribbean out of the weather was 1,500 miles. We carefully computed takeoff speeds and distance, line speeds and refusal speeds.

After takeoff, the navigator and I were satisfied that our planning was right. Yet, an hour later, in spite of what the forecaster had briefed, we entered clouds. Center called, “Climb to FL 350.” At full power and barely 600 fpm rate of climb, we lumbered up from FL 310 to attain FL 350. This was good for fuel, but a heavy Whale is not stable if it tangles with a thunderstorm.

“Center, Whale 211, are you painting any weather in our path?” I asked.

“Sorry, all radars are out of service because of the storms,” they responded.

“Center, any PIREPS?” I asked.

“Sorry, none in your area,” Center said. “No aircraft have passed that way yet.”

When we hit the storm, I thought I was ready. Pitot heat had been on, my seat was locked and the crew were all secure. There it was; freezing rain at FL 350! The aircraft immediately iced over.

“Center, I’m iced over and losing airspeed,” I advised.



I quickly switched from pitot to pitot and engine inlet heat. Now at full power my airspeed was decreasing as the clear and rime ice built up on the wing. I looked at the angle of attack and saw an increase there, too.

After what seemed like an eternity of bucking and bouncing, it was over. My airspeed slowly returned. The remainder of our flight was much smoother.

For several days following the incident, I thought about what had happened. Had I failed to plan for all contingencies? I found an answer in our present attitude toward instrument flying. We take our test annually, fly our check ride by using the simulator or fly on a VFR day, and accumulate the required approaches and instrument time. By doing this, do we really gain the necessary knowledge to fly in inclement weather?

We emphasize NATOPS daily. We have a bank of NATOPS questions, and they appear on the flight schedule every day. We have NATOPS officers. Weather and instrument procedures, however, take a back seat to NATOPS preparations.

Study of the instrument manual in my squadron was intensified, and this proved to be highly educational. Our squadron developed a question bank from the instrument manual and FAR publications. We use the instrument manual and other publications as a permanent part of each flight brief. Weather always changes, but our preparation for flying in it or around it shouldn't change: It should always be in the forefront of our training. ▶

I.Cdr. Schwenk flies with VAQ-34 at NAS Point Mugu, Calif.



## It Only Took a Second

... "Oh, my God, it's going down like a rock. Power! Attitude!" ...

By Lt. Geoffrey Watts

IT looked like a good hop with some EW work with one of our escort ships. The weather wasn't too bad, just an overcast layer. It would soon be dark, or as my skipper said, "A major league night." He wasn't kidding.

I got to the deck in plenty of time. I manned up on the bow. As I preflighted, I was told that I wouldn't have a HARM for the flight. There went the HARM mission. There was really no problem though, just adjust to plan B.

The launch went as scheduled. My flight joined overhead for a little gas and then off to station. Only one of three aircraft was loaded with a HARM, so two of us ran max endurance intercepts against each other. It was extremely hazy as darkness set in. We took it easy and passed two-to-three miles abeam on each run. Finally it was time to return to the boat.

I checked marshal and was given a push time with only five minutes to go. Looking at the numbers and my abundance of fuel (which was unusual), I accepted the time. I busted back, one quick turn in holding to decel to 250 knots and then down the chute I went. I could tell my usual habit patterns were not with me as I passed the platform without having my RADALT bug set. I told myself, "Keep that scan moving, altitude bug at 1,000 feet, don't pass 1,200 feet, level off, dump that gas, don't want to be heavy on the ball."

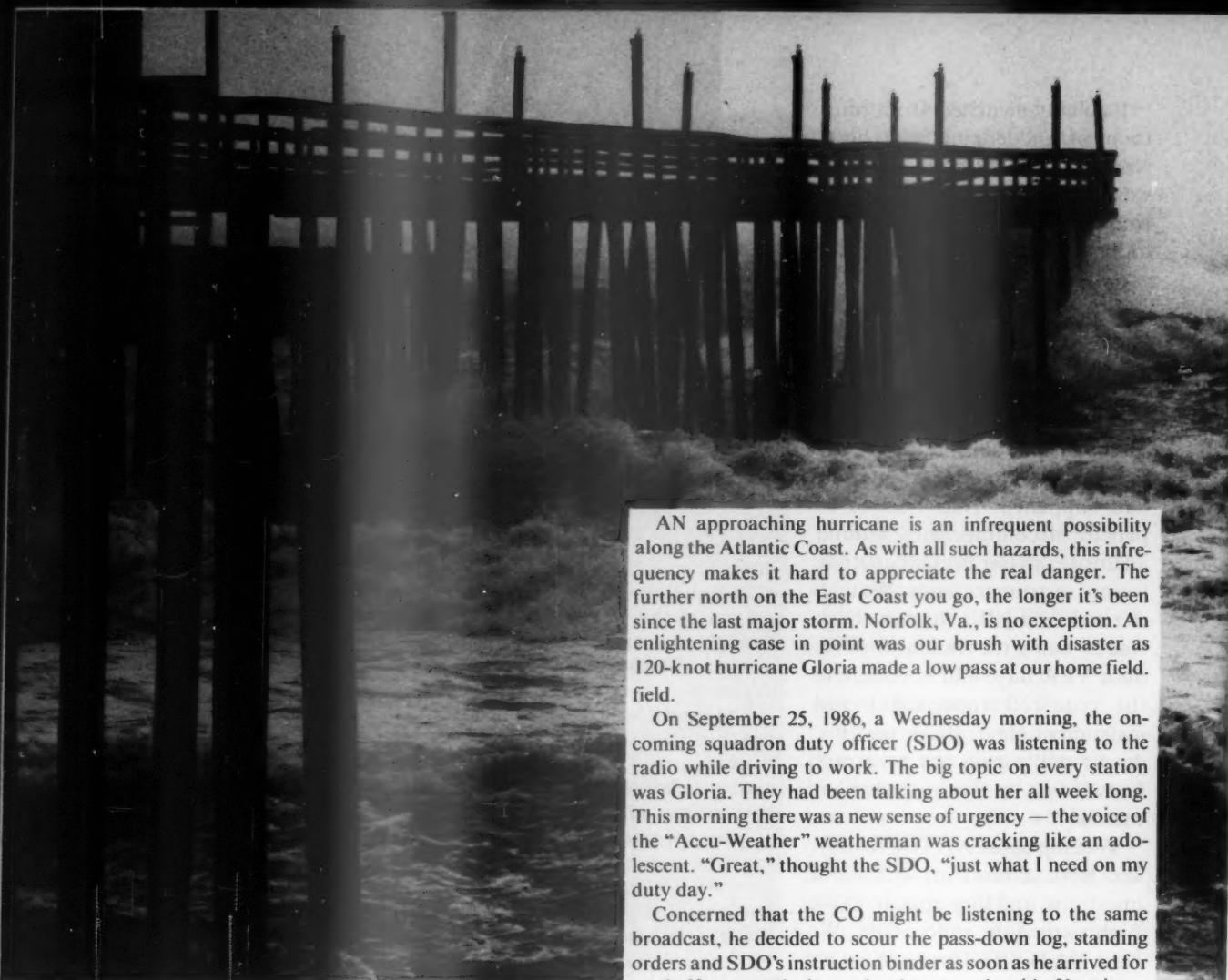
At three miles I pushed over on the bullseye. What was that? I actually had needles on this pass. At two miles I glanced at the boat. The ball was visible on the mirror. At three-fourths of a mile, I was a little high. I said to myself, "Work it down slowly. There, now it's in the middle. A little power back on to catch it. Too much, it's going high. Little power back off. Bunt the nose. How's line-up? Scan the ball. Oh, my god, It's going down like a rock. Power! Attitude!"

A second or two of scan breakdown in close caused me to have a hook-slap kiddie car bolter. My main gear touched down 22 feet beyond the ramp. My hook mark was 3 feet down the round down. That was some distance from the No. 1 wire — all because of a second.

I learned a number of lessons from this incident:

- Don't accept a push time that's almost impossible to make (without racing back at 500 knots).
- Don't rush. Remember the little things.
- No matter how well you're doing or how confident you feel, don't ever think, "This pass is going to be easy."
- Keep that scan moving.
- Don't stop flying the ball in close; don't let your scan break down. ▶

Lt. Watts flies with Strike Fighter Squadron 192, operating off USS *Midway* (CV-41).



AN approaching hurricane is an infrequent possibility along the Atlantic Coast. As with all such hazards, this infrequency makes it hard to appreciate the real danger. The further north on the East Coast you go, the longer it's been since the last major storm. Norfolk, Va., is no exception. An enlightening case in point was our brush with disaster as 120-knot hurricane Gloria made a low pass at our home field.

On September 25, 1986, a Wednesday morning, the oncoming squadron duty officer (SDO) was listening to the radio while driving to work. The big topic on every station was Gloria. They had been talking about her all week long. This morning there was a new sense of urgency — the voice of the "Accu-Weather" weatherman was crackling like an adolescent. "Great," thought the SDO, "just what I need on my duty day."

Concerned that the CO might be listening to the same broadcast, he decided to scour the pass-down log, standing orders and SDO's instruction binder as soon as he arrived for work. However, the log and orders were devoid of hurricane information (there were instructions on thunderstorms). The instruction folder held only a 3-by-5 card saying that Instruction 3141.1D could be located in Operations, and it was dated 1983. Sound familiar?

After the SDO turnover but before the SDO could get to operations to locate the hurricane instruction, a conference call came in from base ops: "Set Hurricane Condition IV and HUREVAC Condition IV." Now the wheels were in motion. Obviously some action had to be taken. The SDO ran up to operations and was the first person to locate the instruction. He had notified the operations officer on the way. Within seconds everyone, including the skipper, was reading the instruction over his shoulder. It was sufficiently vague and

# Hurricane Retrospective

By Lt. Kevin Kasberg

sketchy, yet it pointed them all in the right direction.

The definition of Hurricane Condition IV said, "The track of the tropical storm/hurricane indicates probable threat of tropical storm or hurricane force winds within 72 hours." HUREVAC Condition IV was similar, specifying a variety of reports to submit. Being in a helicopter squadron made the HUREVAC conditions simpler since all squadron aircraft would remain home in order to provide disaster relief immediately after the weather cleared. The required reports were made, and flights continued at the discretion of the operations officer. We had to start preparing for the upcoming severe weather.

That all sounds great, but the term "specific preparations" is where the instruction got vague. Moreover, nobody in the squadron was around for the last one or had even been through a hurricane to provide sea stories. Not to worry though — we had 72 hours to prepare, right? *Wrong*. We *might* have 72 hours, but we might have less. Sure enough, by the end of the day, base ops had set Hurricane Condition III, which is similar to Condition IV but updates the time frame to "within 48 hours."

By this time everyone's concern had peaked. Excitement and apprehension were building rapidly. Inputs on home and personal preparations were coming from all sources, including radio, newspapers, television and, of course, word-of-mouth. Confusion about the squadron's plans and responsibilities was also on the rise. To make matters worse, the duty office began receiving phone calls with increasing regularity from concerned parents of members. The required reports again were made, but there was still a significant doubt about the extent and especially the necessity of our preparations.

The following morning Condition II was set, but we still wondered if everything had been done. The helicopters were already in the hangar, the daily flight schedule was cancelled, all shops were busy taping windows and policing the grounds, and all remaining yellow gear was brought in. But what did we overlook? All written requirements were met, and on paper the squadron was ready for nature's worst.

By midday all non-duty section personnel were released to secure their homes and families. About midnight that evening, winds reached or exceeded 50 knots. Gloria never did hit with her full force, but passed about 25 miles offshore making landfall further north. The local damage was minimal, and the squadron sustained no significant damage. We'd like to think we were ready, but were we? The following questions arose concerning topics that weren't covered in any instruction or guide.

Where or how do we secure contaminated fuel or oil bowsers (normally kept outside the hangar)? Should they be inside the hangar? Or are they better kept outside but exposed to the wind?

Are there serviceable tie-down rings on the ramp near the hangar? When were they last checked? Are they serviceable now?

How close to hangar doors can we park aircraft to ensure their safety? Will the hangar doors withstand the wind and pressure changes? How about the tidal surge? We were only 8 feet above sea level and 40 yards from the bay.

Should rotor blades and loose gear be tied down inside the hangar in case the doors fail or glass in the windward doors breaks? And, by the way, which way will the wind be coming from during a hurricane?

Do you have a "lost comm" recall procedure? Who is considered essential for post-hurricane disaster relief? Telephones will probably be unreliable if a disaster-relief launch is needed. A certain percentage of essential personnel won't be able to make it, so add a good fudge factor. We decided that a total squadron recall by exception would be necessary. In other words, if it hits and you are not in distress, come in unless contacted to do otherwise.

How can the duty section be fed? Those folks who are on watch when the worst arrives may be there for awhile.

Limiting use of the duty telephones to essential business cannot be overstressed.

What about damage control (DC) equipment to limit the damage? Ships are well prepared to control flooding and fire, and we've all been to basic DC School. But in our hangars, what kind of DC equipment is available to patch or wedge a broken window or door?

Outside trash containers may be full and present a potential hazard. The refuse company may not plan to empty or secure them.

Hurricane and HUREVAC Conditions IV through I are predicated on the probable arrival time for hurricane force winds from within 72 hours down to 12 hours. The key word in the definitions is "within." Tracking the path of a hurricane is not an exact science, and the National Weather Service doesn't want to get a reputation for crying wolf and causing undue alarm, so it tends to be a little conservative.

The chart below illustrates how the hurricane rating system can mislead the uninformed:

**Condition Maximum Time (Hours) Actual Time of Arrival (Hours)**

IV	72	38
III	48	30
II	24	14
I	12	7

In our case, the maximum hurricane condition figures were off by almost 50 percent. That presents a problem if you don't understand the hurricane preparation rating system and if your squadron has no written guidance concerning specific squadron responses to various conditions.

How does your squadron stand?

Lt. Kasberg is HSL-41 training officer in SH-60s at NAS North Island, Calif. Previously he was quality assurance officer of HC-6, a helicopter combat support squadron based at NAS Norfolk, Va. A graduate of Cornell University, Lt. Kasberg flew H-46s at HC-6.



"LOOK, lieutenant, don't worry about it. I have a special instrument card," said the HAC (helicopter aircraft commander).

"Famous last words," I said to myself as we put on our helmets and fired off the auxiliary powerplant.

It was a cool, foggy, rainy New England morning. NAS South Weymouth was IFR with a ceiling of 100 feet and visibility about a quarter of a mile. Both the precision approach radar and the TACAN (tactical air navigation) were down at the field. We completed our checklist and taxied to the duty runway. I couldn't but help notice the errant swing of the TACAN needle as it spun wildly inside the RMI (radar magnetic indicator). The ADF (automatic direction finder) needle spun also, but we did not have it tuned in because there was no NDB (non-directional beacon) within receiving distance.

"Mimi 03, taxi to the runway. Be advised I can't see you," the tower said.

"I hope this stuff works," I said to myself as we took position on the runway.

"Mimi 03, fly runway heading, cleared for takeoff," the tower advised.

As we climbed through 3,000 feet, we were handed off to Boston departure control. Our instructions were to proceed directly to the Hartford VORTAC (variable omniranging tactical air control), approximately 75 miles to the southwest. I copied the instructions and channelized the TACAN.

"One eight zero degrees to Hartford," I said over the intercom.

My special instrument card HAC nosed the helicopter into a left turn

until we were heading in the direction indicated by the needle. A few minutes passed before we heard anything from air traffic control.

"Mimi 03, say heading to Hartford," ATC requested.

"One-eighty," replied the HAC.

"Try two-sixty," responded ATC.

At that moment I tried to rechannelize the TACAN. The needle did not move. Again I tried. No response.

"Departure, 03, our TACAN is broken," blurted out the HAC in a somewhat higher tone than normal.

"Are you VOR-equipped?" asked ATC.

"Negative, and our ADF (automatic direction finder) doesn't work either," SC responded as I pointed to the ADF needle and gave it a thumbs down.

"You mean you have no navigational means at all?" the controller asked.

"Affirmative, sir," the HAC answered.

A long pause followed, and I could feel the tension over the air; for neither I, the crew chief nor the controller were very relaxed at this point. Finally the crew chief stated, "At least our transponder works." "Mimi 03, say your intentions," ATC queried.

"You tell me. Where can we go?" the HAC responded.

"What is your desired destination?" ATC asked.

"NAS Willow Grove," was the reply.

"Well, it just so happens that Willow Grove is the only place in the northeast that has weather and PAR facilities to accept you," ATC answered. "Let me coordinate with New York Center."

By this time about 25 minutes had

elapsed. I noticed that neither of our fuel gauges had moved since we took off. I pointed this out to the HAC, who had already lost 10 pounds in sweat.

Just then New York Center called back, "03, New York Center is unable to accept you. Say alternate destination."

"We can't go anywhere else!" the HAC responded.

A short time later ATC came back to us. They assigned us a squawk of "0000" (how fitting) and began vectoring us down the eastern seaboard through the New York TCA to Willow Grove. As we were handed off from one controller to the next, each controller questioned our brain trust. We felt stupid, embarrassed and in trouble.

Two hours later we were picked up by Willow Grove GCA and were delivered back to the world of intelligent people. We landed with no navigational aids and no fuel gauges at the only airport within 500 miles that could handle us.

One of the first things that a student learns during the radio-instrument phase of flight school is to thoroughly check all of navigational aids carefully before taking off on an IFR flight. Circumstances did not allow this check at South Weymouth. However, a thorough weather brief should have persuaded us not to fly that aircraft on that particular morning. Special card or no special card, no mission is so important that it must be flown at the expense of safe and sound operating procedures. (Having a special instrument card means you also should have good sense to know when to use it. In this case, the HAC faced less-than-acceptable weather with a less-than-acceptable aircraft for those conditions, all the ingredients necessary for disaster. The crew was fortunate to get back. As Lt. Nicholson says, "No mission is so important that it must be flown at the expense of safe and sound operation procedures. — Ed.)

At the time of writing, 1st Lt. Nicholson was aviation safety officer with HMH-463 at MCAS Kaneohe Bay, Hawaii, and recently completed a deployment with HMM-262.

# Just One of Those Days

By LCDR. Jim Schneider

IT started out as a routine instrument check and passenger drop at East Coast International, then back to NAS Homeplate. Preflight was routine; we had plenty of gas for the round robin plus a few extra pounds for mom and the kids, decent weather conditions, and we even got off early.

First leg of the stopover was uneventful and enjoyable, since it was an instrument check and we got vectored and cleared to points previously unknown or unanticipated for sequencing in the hustle and bustle atmosphere of an international TCA. Approach and landing were uneventful although weather was moving in fairly rapidly from the northeast. We made the passenger drop at the MAC terminal with engines 1, 2 and 4 shutdown, still with plenty of gas for the trip home.

Since we were about 30 minutes ahead of our schedule, we requested our clearance and tried to depart early. Clearance delivery said we would probably have to wait about 20 minutes, and we decided we could live with that — not that we had much choice in the matter.

Knowing that you sometimes have to move fast at an international terminal, we elected to keep the No. 2 engine running and fired up the APU. About an hour later, and after several unsuccessful attempts at receiving our clearance, we were told we would have to move to the south forty and away from the gate where we were parked. At our new parking spot, we were told by clearance that they now had nothing in the computer on us. Not knowing how long we'd have to wait then, we elected to shut down all engines and leave the APU on.

After another hour, we got clearance and started engines to taxi out, only to join the stack at the hold short. Let's see, APU burns 300 pph, low RPM 600 pph... yeah, we still have enough fuel. Thirty minutes later we were airborne,



after 2½ hours on deck. At least we weren't alone; the 727s, L-1011s and DC-10s all had to endure a computer back-up, less than desirable weather and Center's log-jam of traffic.

No sooner were we airborne and on our way than Center closed the door to any more southbound traffic, and we were cleared to hold en route. Holding — that's for the training command. We don't really have to do that in the fleet, do we? Initially, with no expected final clearance (EFC), we looked again at our gas load and started discussing options for landing short of homeplate to tank up.

Fortunately, we held only a short while then we cleared back home. Cruising at FL310 with a decent tail wind eased our fuel crunch. It looked like we would make it back with fuel to

spare. About 45 minutes out, the CHIPS light on No. 3 flickered. At that point a manifest check was made to verify that someone named Murphy was not on board.

We elected to shut down No. 3 and declared an emergency. Once in contact with approach control, we requested and were told to expect a visual approach and to descend to 2,000 feet. The field was VMC. During the descent a new controller came on the radio, told us to maintain 3,000 feet and to contact "radar." We again declared an emergency and were subsequently cleared for the visual approach.

We made a three-engine landing at homeplate, and we all walked away safely. With all that happened, we were convinced that someone was out to get us. Guess it was just one of those days. LCDR. Schneider is an FRS instructor pilot with VP-30 at NAS Jacksonville, Fla. He is currently serving as the Asst. Operations Officer.

# An Enlightening Experience

By LCdr. Randy Shippee and Lt. Franco Pierce

YOU'VE heard the saying, "Truth is stranger than fiction." That describes the story you are about to read, which has been documented as a matter of medical record. On March 27, 1984, one of the authors of this article (LCdr. Shippee) was pedaling his 10-speed bicycle home after work during a severe thunderstorm. Within a few minutes of departing the hangar, he was struck by a bolt of lightning but survived to tell Approach readers about his incredible experience.

NAS Jacksonville is located in the northeast corner of "The Lightning Capital of the World." On any given day throughout Florida, the Naval Oceanography Command's LPAT System (Lightning Position and Tracking System) records several thousand cloud-to-ground lightning strikes per hour. Other than flooding, lightning strikes are the number one killer of all severe weather phenomena. Although normally associated with the thunderstorm cell, lightning can strike anywhere within 25 miles of the cell. The highest obstacle above ground with the greatest conductivity provides the best target for a lightning strike. However, people in swimming pools, on baseball diamonds and on bicycles have all been struck, even while among other higher targets.

Although the Naval Safety Center has recorded only one aircraft crash due to a lightning strike while airborne, naval aviators are inherently cautious while flying in the vicinity of severe thunderstorm activity. How many of us actually consider the possibility of being struck by lightning while supposedly safe on deck?

## LCdr. Shippee's story:

It was about 1630, and I had just landed due to severe thunderstorm activity around NAS Jacksonville, after being airborne only 30 minutes. The air station had set Thunderstorm Condition I,



and a general recall of all squadron aircraft had been issued due to the particularly severe nature of the group of cells in the local area. I debriefed my crew and decided to call it a day and head for home.

I lived on base at NAS Jacksonville and routinely traveled to and from the hangar on my 10-speed bicycle. The weather, on this rare occasion, was worse than briefed, with severe thunderstorms in the area. Undaunted, I put on my yellow raingear, climbed on my bicycle and headed for home.

There I was, straight and level, doing about 8 knots. The moderate rainfall had reduced the prevailing visibility to less than three miles. After traveling about a block, while westbound just past the NARF building, I felt a tremendous jolt, not unlike being clobbered on the head with the large blue book we are all so fond of. Just prior to

experiencing the jolt, my hair stood on end. I also felt a sharp electrical jolt in both wrists at the point where the raincoat ended and saw a flash of bright light. Immediately three thoughts came to mind: I was still alive, I had been struck by lightning and I had a bad headache.

I experienced no abnormal muscular contraction or discomfort, other than the aforementioned tingling sensation in both wrists and the headache. At no time did I lose control of the vehicle, black out or lose consciousness. Call it get-home-itis, but I pressed on for home, about 2½ miles away.

Once home I discussed the situation with my wife, who noted a lump and reddish area on my head where I thought I took the lightning strike. No other physical abnormalities were noted. We decided it would be best to tell the squadron safety officer and abide by his recommendation. The next morning I spoke to the squadron safety officer, who recommended a voluntary grounding until I could be returned to an up status after examination by our flight surgeon. After a trip to medical, an interview with the incredulous Doc and a complete EKG, an up-chit was issued. To this day, I have not experienced any abnormal side effects.

Hazardous weather is exactly that — hazardous weather. You don't have to be in an airplane to be affected by it.

Protective clothing is just that — protective clothing. It's meant to be worn for a particular reason. With the exception of my head and both hands, I was completely dry. Had I not been wearing a full rain suit, or had I had both my feet on the deck, this story could have had a different ending. As the flight surgeon put it: "He was one of the lucky ones."

Contrary to the popular saying, it can (and did) happen to me!

LCdr. Shippee and Lt. Pierce fly the SH-3H with HS-1.

# BROWNSHOES IN ACTION COMIX

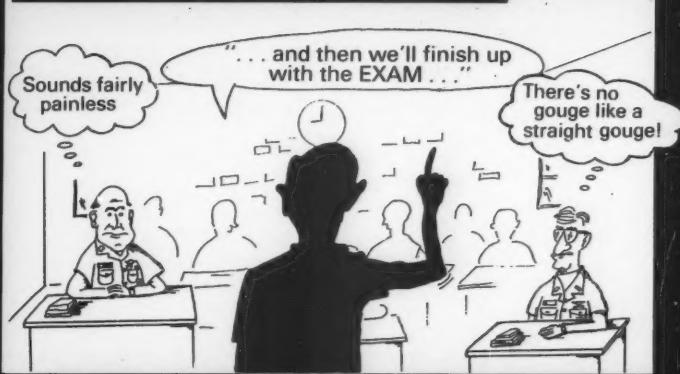
"The kind real aviators like"

Contributed by Lt. Ward Carroll, VT-86

(Weather) knowledge is good.

Faber

One morning at instrument ground school



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(Birthdays case by case; no bachelor parties please)



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(Left) Ryan Sheppard is a future naval aviator "flying" the F3F pedal plane that his grandfather made for him. Oden Sheppard is a retired lieutenant commander who flew PBYs in World War II.

## YOU'RE NEVER TOO JUNIOR OR TOO SENIOR FOR SAFETY.



(Above) VAdm. Robert F. Dunn (left), ACNO (Air Warfare), the Navy's current Gray Eagle (the most senior naval aviator on active duty), recently embarked aboard the USS *America* in an F/A-18A.



Photos courtesy of Association of Naval Aviation

